



DeKalb County
Department of Watershed Management
178 Sams Street Decatur, GA 30030



DeKalb County Department of Watershed Management

Check List for Backflow Prevention Design Plan Review & Approval

Document Last Revision Date: 3-31-2021

DeKalb County AP #	Project Name:
City:	Address:
City Permit #	Review Cycle #
Date:	Utility Site Plan Drwg #
Applicant's contact:	
Design Engineer Contact:	
Reference Projects information's:	

1. Backflow Prevention Check List:

- Address/Incorporate Redline comments on the plans or checked with X on this list.
- Return Check list with Redline plans and the revised plans for review.
- All engineering drawings and calculations must be sealed, signed, and dated by Georgia Registered Professional Engineer.
- Show all existing and proposed connection to DeKalb County water mains.
- Show all existing and proposed backflow prevention devices. Label Location, type and size.
- Include note on the cover sheet describing the proposed **use** of the facility.
- Include standards details for backflow prevention from DCDWM Design Standards.
- Are there any other hazardous or nonhazardous systems connected with DeKalb County Water Distribution System? (Show note on the plan)
- Is there proposed or existing **Chiller** plant on the site? (Show note on the plan)
- Is there proposed or existing Commercial pressurized **Boiler** system on the site?
- Is there proposed or existing **swimming pool** on the site? (Show note on the plan)
- Is there proposed or existing **carbonated soda machine** on site? (Show note on the plan)
- Is there **Decorative Water Fountain** or **Decorative Pond** on the site? (Show note on the plan)
- Is there **Ice machine** on the site? (Show note on the plan)

2. Backflow Prevention Check list – Commercial water service lines:

- Show the water main Tap **T.S. & V** symbol and label sizes, show the commercial water service line location, size and material, Water meter location and size, Backflow preventer location, type and size.
- Indicate **Use** of Proposed or Existing facility / building:

Example: <i>Restaurant, Chemical process facility, Office space, Hospital,</i>

- Size ___ inch **R.P.P.** (Reduced Pressure Principle) is required to be installed above ground on commercial water service line in a weather protective box per DCDWM Specifications and Standards.
- Size ___ inch **D.C.** (Double Check Valve Assembly) is required to be installed on commercial water service line per DCDWM Specifications and Standards.
- Size of the water main Tap, size of the water service line, size of the water meter and size of the Backflow prevention device must be the same. There is no reducer allowed on water service line between water main Tap and Backflow preventer device.
- Any type of Backflow preventer assembly installation inside the building must be approved by **DeKalb County Cross Connection & Backflow prevention program.**
Email contact: dekalbbackflow@dekalbcountyga.gov

3. Backflow Prevention Check list - Irrigation Water service lines:

- Is there a separate connection for the water irrigation system?
- If no, show a note on the Utility site plan: “**No proposed water irrigation system**”.
- If yes, then the following is required:
- Show irrigation water service line location, size and material, irrigation water meter location and size, Backflow preventer location, type and size.
- Size ___ inch **R.P.P.** (Reduced Pressure Principle) is required to be installed above ground on water irrigation line in a weather protective box per DCDWM Specifications and Standards.
- Size of the water main irrigation Tap (or size of the TEE off irrigation water line connection from the commercial water service line) , size of irrigation water service line, size of irrigation water meter and size of R.P.P. Backflow preventer device must be the same.
- There is no reducer allowed on irrigation water service line between water main Tap and irrigation Backflow preventer device.

4. **Backflow Prevention Check List - Fire lines: Unmetered and Metered Fire Lines:**

- Is there any proposed or existing fire line at development site?
- If no, then show a note on Utility site plan.
” **No Proposed or Existing Fire line**”.

If yes, there is a proposed or existing Fire line then the following is required:

- Show Fire line Tap **T.S.&V** symbol with sizes, Fire line location, Fire line size and material. Minimum DIP class 51 is required. Indicate Unmetered Fire line or Metered Fire line.

Backflow preventer type according Proposed Type of Fire Sprinkler System.:

- Wet-pipe fire sprinkler systems - no antifreeze no anticorrosive chemicals in fire sprinkler system fire water present => **DCDVA** is required as a minimum protection.
- Wet-pipe fire sprinkler systems with antifreeze or with anticorrosive chemicals injected in the system => **RPDA** is Required as a minimum protection.
- Deluge fire sprinkler system as a dry-pipe non-pressurized fire suppression system. These systems are open to the atmosphere with no chemicals will be added when fire water flows. **DCDVA** is required as a minimum protection.
- Deluge fire sprinkler system as a dry-pipe non-pressurized fire suppression system. These systems are open to the atmosphere with chemicals will be added when fire water flows => **RPDA** is required or **Air Gap** is required as a minimum protection.
- Dry-pipe and Pre-action fire sprinkler systems. A dry-pipe pressurized system is typically pressurized with air or nitrogen, whereas a Pre-action system may or may not be pressurized. In either case, a **DCDVA** is Required as a minimum protection.
- Dry-pipe and Pre-action fire sprinkler systems. A dry-pipe pressurized system is typically pressurized with air or nitrogen, whereas a Pre-action system may or may not be pressurized. If a high hazard chemical are used when fire water flows then **RPDA** or **Air Gap** is required as a minimum protection.

All Types of Fire Protection Systems connected to the DeKalb County public water distribution system when the following conditions exist:

- If the Fire protection system contains anti-freeze or any other hazardous chemicals, then an **RPDA** or **Air Gap** device is required as a minimum protection.
- If fire water can be also pumped to the Fire protection system from a non-potable water supply such as a retention pond, reclaimed water supply, river, or lake then an **RPDA** or **Air Gap** is required as a minimum protection.

- **Indicate type of proposed Fire Protection System for your development:**

Example: <i>Wet-pipe fire sprinkler systems with antifreeze and 6" unmetered fire line</i>

- Size ____ inch **DCDVA** (Double Check Detector Valve Assembly) backflow device is required to be installed on fire line in a vault per DCDWM Specifications and Standards. See Detail.
- Size ____ inch **RPDA** (Reduced Pressure Detector Valve Assembly) backflow device is required to be installed on fire line above the ground per DCDWM Specifications and Standards. See Detail.
- Size of the water main Tap, size of the Fire line and size of the backflow prevention device must be the same. There is no reducer allowed between water main Tap and Backflow preventer device.
- Any type of Backflow preventer assembly installation inside the building must be approved by **DeKalb County Cross Connection & Backflow prevention program.**
Email contact: dekalbbackflow@dekalbcountyga.gov

5. Show the following backflow preventer details on your Detail drawing:

- Show DeKalb County DWM Standard **RPP** detail(s) number **W-011; W-012**
- Show DeKalb County DWM Standard **RPDVA** detail number **W-013;**
- Show DeKalb County DWM Standard **DCDVA** detail number **W-009;**
- Show DeKalb County DWM Standard **DC** detail(s) number **W-014; W-010**

DeKalb County Backflow Details link: Page 238-243.

<https://www.dekalbcountyga.gov/sites/default/files/user3576/DWM%20Water%20and%20Sewer%20Design%20Standards%20-%202010%2018.pdf>

6. Show on proposed Utility Site plans:

“BACKFLOW PREVENTION NOTES:”

1. All required backflow prevention devices must be installed per DCDWM Standards as close as practical to property line, outside of public right-of-way, DeKalb County water lines easements, water meter easements and any other DeKalb County & Utility Companies easements.
2. Installation of backflow prevention devices inside the building is not allowed without prior approval from Backflow Prevention Division of DCDWM.
3. Call (404) 687-4075 for Backflow prevention inspection prior to installing any backflow prevention devices. Email contact: dekalbbackflow@dekalbcountyga.gov

7. Proposed Remodeling and Addition of existing development.

- Indicate **Use** of existing space:
- Indicate **Use** of proposed space:

Information Notes:

1. **The Backflow Prevention Inspection is a separate inspection and apart from Plumbing Inspection.**
2. **The Backflow Prevention Inspection ensures compliance with DeKalb County Cross Connection Control & Backflow Prevention Program, EPD regulations and EPA regulations.**
3. **Plumbing Inspection ensures compliance with International Plumbing Code (IPC) - with Georgia Amendments**
4. **USC FCCCHR 10 Edition Manual.**
5. **DeKalb County Code Article II. Division 1_Sec. 25-27. And Sec. 25-34**
6. **DeKalb County Standards page 14. Cross connection control protection**
7. **DeKalb County DWM Standards can be downloaded from DWM website**
<https://www.dekalbcountyga.gov/watershed-management/office-engineering-construction-management-services>

DWM Project notes & Plan review notes, comments:

DWM Planning & Development Plan review:

1 178 Sams Street Decatur, GA 30030

DWM Plan review engineer contact information:

DeKalb County DWM Planning & Development forms:

<https://www.dekalbcountyga.gov/planning-and-sustainability/watershed-guides-checklists-and-calendars>

DeKalb County Cross Connection Control & Backflow Prevention Program

4572 Memorial Drive, Decatur, GA 30032

Phone: 404-687-4075

Email: dekalbbackflow@dekalbcountyga.gov

DeKalb County Backflow Prevention website:

<https://www.dekalbcountyga.gov/watershed-management/backflow-prevention-information>

Cross Connection Brochure link:

<https://www.dekalbcountyga.gov/sites/default/files/user334/Cross%20Connection%20Brochure%20-%20FINAL.pdf>

Backflow Prevention Brochure link:

<https://www.dekalbcountyga.gov/sites/default/files/user334/Backflow%20Prevention%20Brochure.pdf>

Georgia EDP: <https://epd.georgia.gov/watershed-protection-branch/drinking-water>

Georgia EDP: [Minimum Standards for Public Water Systems](#)

DeKalb County Backflow Details link: Page 238 to 243

<https://www.dekalbcountyga.gov/watershed-management/office-engineering-construction-management-services>